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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,916	03/10/2004	Rajan Bhandari	R. Bhandari 2-15-4 (LCNT/	3343

46363 7590 09/10/2007	EXAMINER	
PATTERSON & SHERIDAN, LLP/	LAM, HENRY S	
LUCENT TECHNOLOGIES, INC		
595 SHREWSBURY AVENUE	ART UNIT	PAPER NUMBER
SHREWSBURY, NJ 07702	2609	

MAIL DATE	DELIVERY MODE
09/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/797,916	BHANDARI ET AL.
	Examiner	Art Unit	
	Henry Lam	2609	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *19 and 20* is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☒ Claim(s) *13-18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *10 June 2005*.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public

use or on sale in this country, more than one year prior to the date of application for patent in the United

States.

2.   Claims 1-3, 6, 7, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by

McNamara (US 6,262,976 B1).

For claims 1-3, 6, 7, 10 and 11, **McNamara** teaches a communications network, a

method for combining data packets intended for a common communications device

(column 7, lines 6-15), comprising:

sorting data packets received during a predetermined time period into groups according to

for which communications device of the network the received data packets (column 9,

lines 27-49) are intended;

respectively time aligning the data packets in each of the groups (column 31, lines 8-10);

and

orthogonally combining the sorted and time aligned data packets within each group

(column 14, lines 66-67; and column 15, lines 1-3);

wherein the received data packets are sorted using a MAC header of each of the received

data packets (column 55, lines 55-60);

wherein the received data packets are stored in different sections of a memory according

to for which communications device of the network the received data packets are

intended (column 19, lines 3-10);

wherein the orthogonally combined data packets are transmitted to an intended receiver

using a single MAC header (column 41, lines 13-17);

wherein a respective bandwidth required to transmit each group of the orthogonally

combined data packets is substantially the same as a bandwidth required to transmit a

largest data packet in each of the groups (column 30, lines 39-51);

wherein only data packets having specific MAC

headers are orthogonally combined (column 41, lines 13-17); and

wherein data packets not orthogonally combined are communicated in the network

according to conventional Ethernet protocols (column 9, lines 54-58).

Claim Rejections - 35 USC § 103

3.   This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
>
> or described as set forth in section 102 of this title, if the differences between the
>
> subject matter sought to be patented and the prior art are such that the subject
>
> matter as a whole would have been obvious at the time the invention was made
>
> to a person having ordinary skill in the art to which said subject matter pertains.
>
> Patentability shall not be negatived by the manner in which the invention was
>
> made.

5.   Claim 4, 5, 8, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

McNamara (US 6,262,976 B1) in view of **Dapper et al** (US 6,275,990 B1).

For claims 4, 5, 8, 9, and 12, **McNamara** discloses the entire claimed invention, as

recited in paragraph 2 of this office action, except for further comprising sorting for

transmission the orthogonally combined data packets in different sections of a memory

according to for which communications device the combined data packets are intended

(Dapper, column 44, lines 36-40) as recited in claim 4; wherein the orthogonally

combined data packets are stored in different sections of a memory according to which

communications device of the network the combined data packets are to be transmitted

(Dapper, column 74, lines 14-33) as recited in claim 5; wherein the predetermined time

period is substantially greater than or equal to a total time latency for receiving data

packets intended for a common communications device of the network (Dapper, column

96, lines 54-63) as recited in claim 9; wherein data packets in the network are

communicated according to a global timing schedule and the time latency is due to

differences in the latencies of transmission media of the communications devices of the

network (Dapper, column 96, lines 39-43) as recited in claim 9. An apparatus for

combining data packets intended for a common communications device in a

communications network, comprising: a timer for defining a time period for receiving

data packets; an addressing device for defining a storage location for the received data

packets according to for which communications device of the network the received data

packets are intended; a memory for storing the received data packets in different sections

according to the storage location defined by the addressing device, wherein the data

packets stored within each of the different sections are respectively timed aligned

(Dapper, column 74, lines 14-33); and a combiner for orthogonally combining the

respective time aligned data packets in each of the different sections of the memory as

recited in claim 12. **Dapper** from the same or similar fields of the endeavor teaches the

application of Transport of payload information and control messages on multiple

orthogonal carriers spread throughout substantially all of a frequency bandwidth. Thus, it

would have been obvious for the person of ordinary skill in the art at the time of the

invention to use the method of orthogonal, memory storage, and dueling with latency in

data packet taught by **Dapper** into the System And Method For Network Flow

Optimization Using Traffic Classes of **McNamara.** The use method of orthogonal,

memory storage, and dueling with latency in data packet are implemented as a hardware

solution, a software or as a firmware solutions of **Dapper** into the System And Method

For Network Flow Optimization Using Traffic Classes of **McNamara.** The motivation

for using the method of orthogonal, memory storage, and dueling with latency as taught

by **Dapper** in the System And Method For Network Flow Optimization Using Traffic

Classes of **McNamara** being that it provides a optimized transport data communication

with low delay in networking.

Allowable Subject Matter

6.   Claims 13-18 are objected to as being dependent upon a rejected base claims, but would

be allowable if written in dependent from including all of limitations of the base claim any

intervening claims.

7.   Claims 19 and 20 are allowed.

The following is a statement of reasons for the indication of allowable subject matter.

The prior art teaches a method of the synchronized combining of packet data, but the

prior art fails to teach a packet network where data packets intended for a common

communications device are combined, comprising:

a plurality of communications devices; and

a switch for interconnecting the communications devices, wherein the

interconnection switch includes:

a timer for defining a time period for receiving data packets;

an addressing device for defining a storage location for the received data packets

according to for which communications device of the network the received data packets

are intended;

a memory for storing the received data packets in different sections according to the

storage location defined by the addressing device, wherein the data packets stored within

each of the different sections are respectively timed aligned; and

a combiner for orthogonally combining the respective time aligned data packets in each

of the different sections of the memory.

A packet network where data packets intended for a common communications device are

combined, comprising:

a non-blocking switch for interconnecting communications devices of the network; and

a plurality of communications devices, wherein at least one of the

communications devices includes:

a timer for defining a time period for receiving data packets;

an addressing device for defining a storage location for the received data packets

according to for which communications device of the network the received data packets

are intended;

a memory for storing the received data packets in different sections according to the

storage location defined by the addressing

device, wherein the data packets stored within each of the different

sections are respectively timed aligned; and

a combiner for orthogonally combining the respective time aligned data packets in each

of the different sections of the memory.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

        Rakib et al. (US 6,356,555 B1) and **Trans et al.** (US 2003/0016770 A1) are all cited to

show systems which are considered pertinent to the claimed invention.
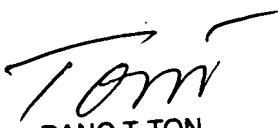
9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Henry Lam whose telephone number is (571) 270-3122. The

examiner can normally be reached on Monday through Thursday 8:00AM to 5:00PM EST.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HL

DANG T. TON
SUPERVISORY PATENT EXAMINER